

Claims

1. A combination of dedicated dental implant or implant assembly, prosthesis and retaining screw, wherein the anchorage part (1) of the prosthesis comprises a hole (2) for the retaining screw, characterized in that the diameter of the neck (3) of the retaining screw is smaller than the hole in the anchorage part of the prosthesis so as to allow, upon fixing of the prosthesis to the implant or implant assembly with retaining screw, compensation for lateral misalignments between the center of the anchorage part of the prosthesis and the center of the implant or implant assembly.
2. The combination according to claim 1, wherein the diameter of the neck (3) of the retaining screw is about 0.4 to 1.2 mm smaller with respect to the diameter of hole (2) in the anchorage part of the prosthesis.
3. The combination of claim 1 or 2, which is further characterized in that the interface of said implant or implant assembly with the anchorage part of prosthesis comprises a flat-to-flat connection, allowing, upon fixing of the prosthesis to the implant or implant assembly with the retaining screw, compensation for lateral misalignments between the center of the anchorage part of the prosthesis and the center of the implant or implant assembly.
4. The combination of claim 1 or 2, wherein the interface of said implant or implant assembly with the anchorage part of prosthesis is characterized by interlocking features which ensure a tolerance interlock, allowing, upon fixing of the prosthesis to the implant or implant assembly with the retaining screw, compensation for lateral misalignments between the center of the anchorage part of the prosthesis and the center of the implant or implant assembly.
5. The combination according to any one of claims 1 to 4, wherein said anchorage part is a separate cylindrical component that can be incorporated into a prosthesis.
6. The combination according to claim 5, wherein said anchorage part is integral part of the prosthesis.

- 5 7. The combination of any one of claims 3 to 6, wherein said implant is a single structure and said flat-to-flat connection or said tolerance interlock is between the proximal surface of the fixture head (6) of said implant and the proximal surface of the anchorage part of the prosthesis.
- 10 8. The combination of any one of claims 3 to 6, wherein said implant assembly comprises an abutment and said flat-to-flat connection or said tolerance interlock is between the abutment and the anchorage part (1) of the prosthesis.
- 15 9. The combination of any one of claims 1 to 9, wherein said implant has an external surface comprising a distal part (7) which is treated to interface with bone and a proximal part (8) which is untreated, characterised in that the proximal part has a length of between 2 and 6mm.
- 20 10. The combination of claim 3, wherein the fixture head of said implant at the interface of said implant with the prosthesis having a flat surface, further comprises in said flat surface one or more dedicated features to allow easy extraction of said implant after placement.
- 25 11. The combination of claim 3, further comprising an impression coping which comprises an anchorage part with a proximal surface, characterised in that said proximal surface is flat.
- 30 12. The combination of claim 3, further comprising an implant replica, characterised in that it comprises a proximal end of which the proximal surface is flat (9) for connection with the anchorage part of said prosthesis or said impression coping having an anchorage part with a proximal flat surface.
13. A dental implant replica characterised in that it comprises a flat-surfaced proximal end (9) for connection with the proximal flat surface of an anchorage part of a prosthesis or an impression coping.

14. The implant replica of claim 13, further comprising one or more flat indentations (10) on its external surface for anchoring into a plaster cast.
- 5 15. The implant replica of claim 13, further comprising a tapered distal end (11) for insertion into a resin mould.
- 10 16. The implant replica of claim 13, comprising in said flat surface, an opening to an internal threaded hole (12) for introduction of a screw, characterized in that the diameter of the opening and hole are the same size as or smaller than the diameter of the opening in the anchorage part of said prosthesis or impression coping.
- 15 17. A retaining screw for fixing a prosthesis to a dental implant or implant assembly having at their interface a flat-to-flat connection or a tolerance interlock, said retaining screw being characterized in that the diameter of its neck (3) is smaller than the hole in the anchorage part of the prosthesis (2), so as to allow, upon fixing of the prosthesis to the implant or implant assembly, compensation for lateral misalignments between the center of the anchorage part of the prosthesis and the center of the implant or implant assembly.
- 20 18. The retaining screw according to claim 17, characterized in that the diameter of its neck (3) is about 0.4 to 1.2 mm smaller with respect to the diameter of hole in the anchorage part of the prosthesis.
- 25 19. The retaining screw according to claim 17, further characterized in that it has a cylindrical head (13) with a conical opening inwards (14) to guide the screwdriver into position for screwing.
- 30 20. The retaining screw of claim 17, characterized in that the threaded shaft (15) fits into the threaded hole in the implant or implant assembly.
21. A centering screw for fixing a cylindrical component to the implant replica of claim 13 in the production of prosthesis, said centering screw having an externally tapered distal section (16) and having a threaded shaft (17) which fits into the

threaded hole (12) of said implant replica.

- 5 22. The centering screw of claim 21, further characterized in that said externally tapered distal section at its widest part has the same diameter as the inner diameter of the cylindrical component so that the tapered shape ensures centering of the screw with respect to the hole in the anchorage part of said implant replica.
- 10 23. An impression coping for taking an impression of a dental implant or implant assembly comprising at its proximal end a flat surface, said impression coping comprising an anchorage part (18) having a flat surface.
24. A burn-out cylinder for connection to the implant replica of claim 13, comprising a proximal end (19) which comprises a flat surface.
- 15 25. The burn-out cylinder of claim 24, which further comprises a tapered collar (20).
- 20 26. The burn-out cylinder of claim 24, further comprising an internal shaft comprising two cylindrical parts, wherein the diameter of proximal of said two parts is smaller than that of the distal part.
27. An dental implant for use in combination with an abutment, comprising an externally threaded shaft and a non-threaded head having a length of at least 2 mm.
- 25 28. A combination of an impression coping and one or more impression coping screws for fixing to a dental implant or implant replica, said impression coping comprising an internal cylindrical hollow shaft and said impression coping screws comprising a threaded shaft having a diameter corresponding to the diameter of the cylindrical hollow shaft in the impression coping, characterized in that said
- 30 one or more impression coping screws can have either a flat cylindrical head with a diameter that is exactly equal to that of the distal part of the coping or a bulbous head with a diameter which larger than that of the distal part of the coping.

29. The combination according to claim 28, wherein said coping impression has a tapered external shape with a concave intrusion circumferentially along the external surface of its proximal part.